ABSTRACT OF THE DISCLOSURE

A liposome having a lipid bilayer, where the lipid bilayer includes either the L or D stereoisomer of an ether lipid or a non-equal mixture of both. Most preferably the liposome also comprises (a) an underivatized phosphatidylcholine; (b) a sterol; (c) about 5-20 mole % of a phosphatidylethanolamine linked to a dicarboxylic acid at the ethanolamine group of the phosphatidylethanolamine, and (d) greater than about 10 mole % to less than about 30 mole % of either the L or D stereoisomer of an ether lipid. The liposome may be used as an anti-cancer or anti-inflammatory agent.